

FIG. 1

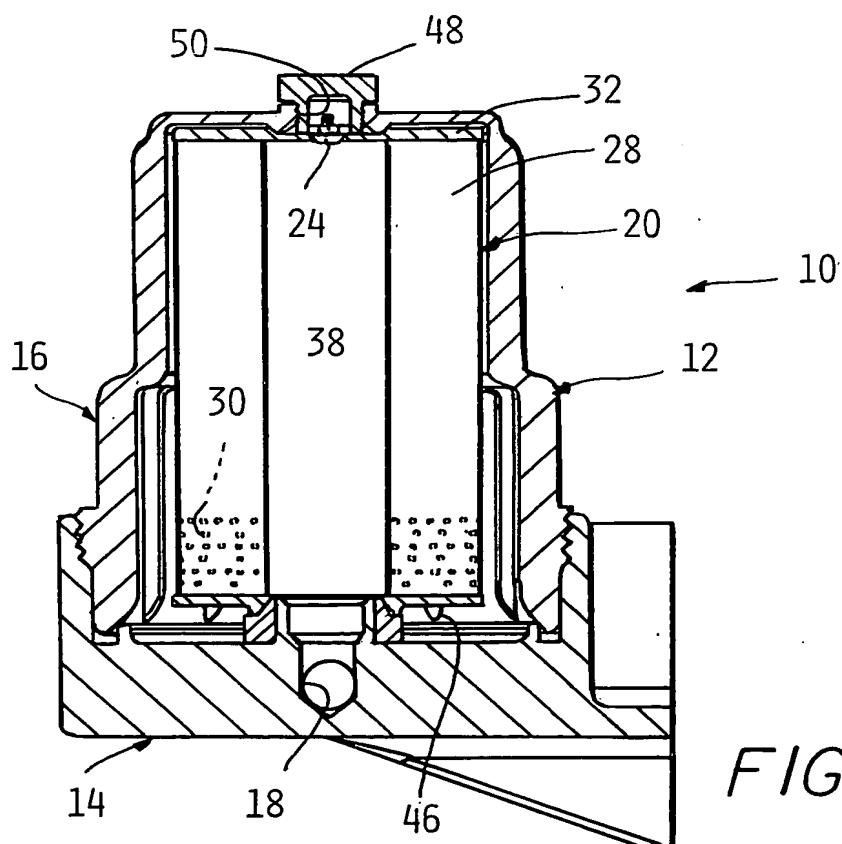


FIG. 3

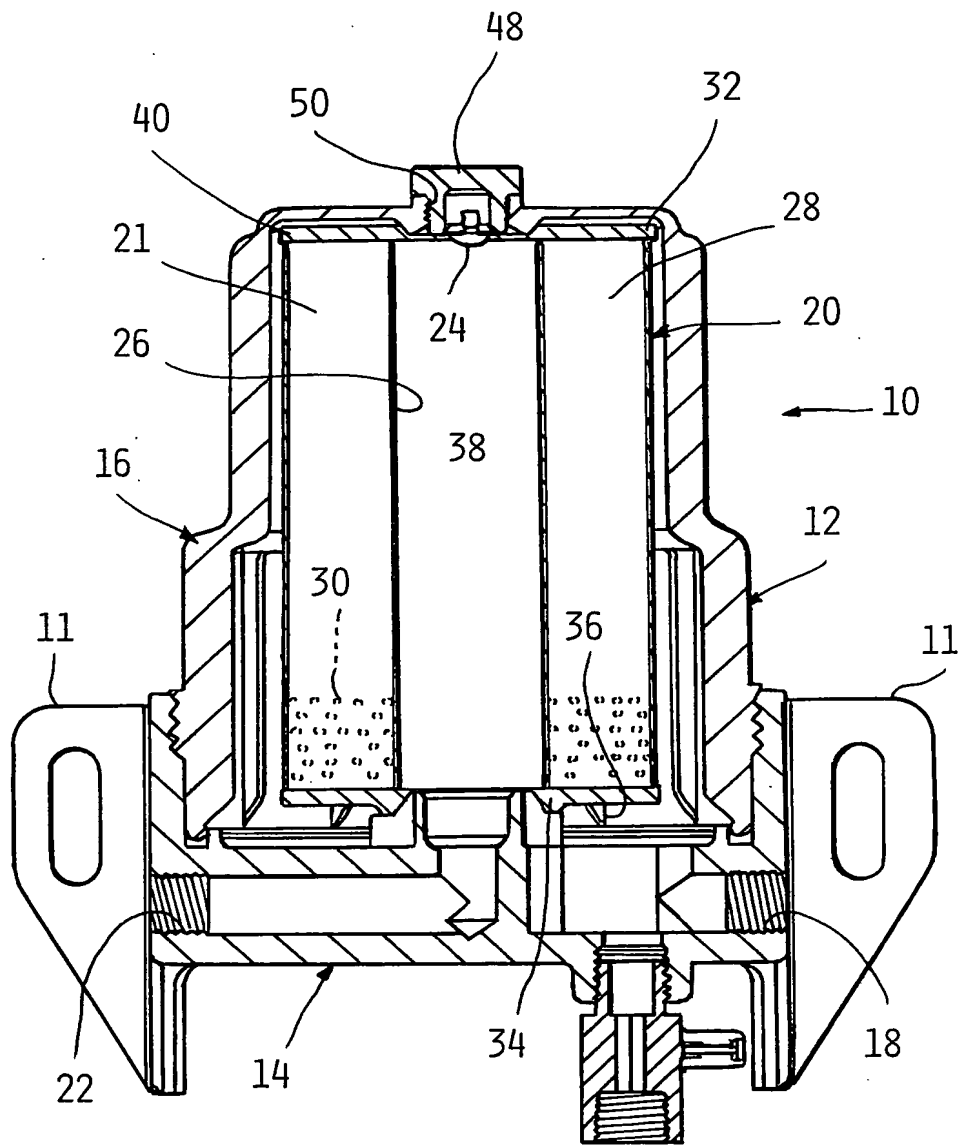


FIG. 2

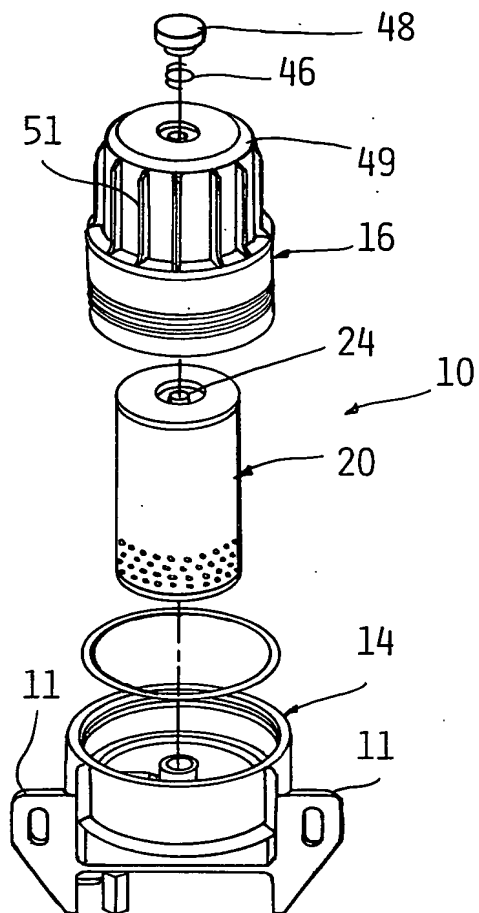


FIG. 4

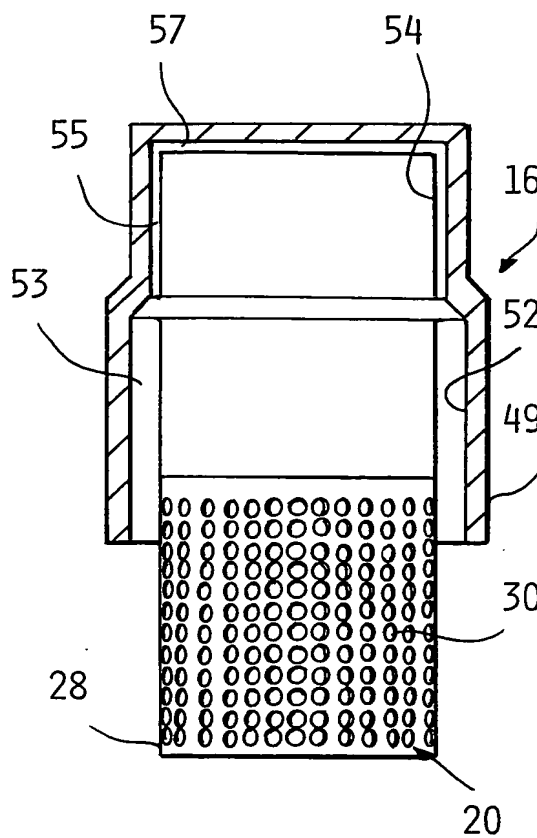


FIG. 5

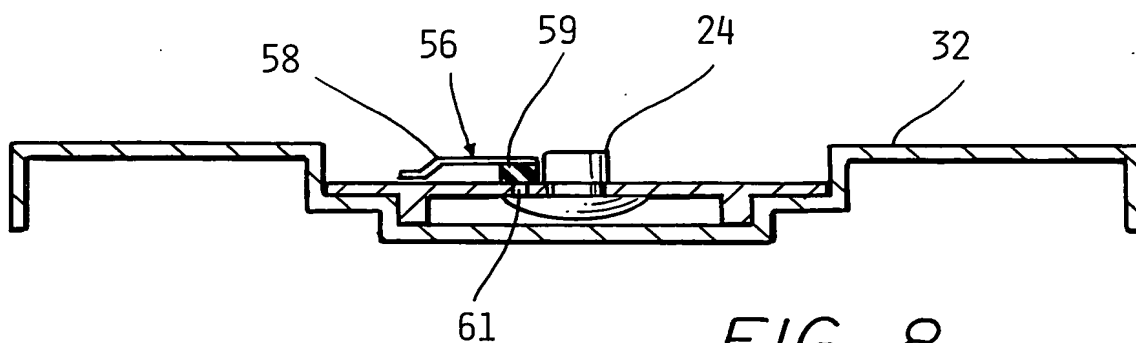


FIG. 8

FILTER IN HOUSING

VOLUME 1 – LARGE VOLUME		
CLEARANCE	0.5	INCH
SMALL DIA	3.82	INCH
LARGE DIA	4.82	INCH
HEIGHT	3.25	INCH
VOLUME 1	22.05	CUBIC INCH
VOLUME 1	0.36	LITERS

VOLUME 2 – SMALL VERTICAL VOLUME		
CLEARANCE	0.15	INCH
SMALL DIA	3.82	INCH
LARGE DIA	4.12	INCH
HEIGHT	1.5	INCH
VOLUME 1	2.81	CUBIC INCH
VOLUME 1	0.05	LITERS

VOLUME 3 – VOLUME ABOVE FILTER		
LARGE DIA	4.12	INCH
HEIGHT	0.2	INCH
VOLUME 1	2.67	CUBIC INCH
VOLUME 1	0.009	LITERS

TOTAL VOLUME =	0.42	LITERS
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AIR VOLUME & HEIGHT CALCULATIONS

INITIAL NEW FILTER – NO FUEL		
P 1 =	1	atm
T 1 =	294	K
V 1 =	0.42	LITER

CLEAN AT SYSTEM PRESSURE		
P 2 =	116	PSI
P 2 =	7.888	atm
T 2 =	333	K
V 2 =	0.0597528	LITERS
V 2 =	3.646298	CUBIC INCH
HEIGHT BELOW TOP		

SEEING IS BELIEIVING END POINT		
P 3 =	188	PSI
P 3 =	12.784	atm
T 3 =	333	K
V 3 =	0.066868	LITERS
V 3 =	2.249848	CUBIC INCH
HEIGHT BELOW TOP		

DIFFERENCE IN HEIGHT		INCHES
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FIG. 6

FILTER IN HOUSING

VOLUME 1 – LARGE VOLUME		
CLEARANCE	0.375	INCH
SMALL DIA	3.82	INCH
LARGE DIA	4.57	INCH
HEIGHT	2.75	INCH
VOLUME 1	13.59	CUBIC INCH
VOLUME 1	0.22	LITERS

VOLUME 2 – SMALL VERTICAL VOLUME		
CLEARANCE	0.1	INCH
SMALL DIA	3.82	INCH
LARGE DIA	1.02	INCH
HEIGHT	2	INCH
VOLUME 1	2.46	CUBIC INCH
VOLUME 1	0.04	LITERS

VOLUME 3 – VOLUME ABOVE FILTER		
LARGE DIA	4.02	INCH
HEIGHT	0.2	INCH
VOLUME 1	2.54	CUBIC INCH
VOLUME 1	0.01	LITERS

AIR VOLUME & HEIGHT CALCULATIONS

INITIAL NEW FILTER – NO FUEL		
P 1 =	1	atm
V 1 =	0.27	LITERS

CLEAN AT SYSTEM PRESSURE		
P 2 =	60	PSI
P 2 =	4.08	atm
V 2 =	0.066518	LITERS
V 2 =	4.059198	CUBIC INCH
HEIGHT BELOW TOP	2 INCHES	

SEEING IS BELIEVING END POINT		
P 3 =	80	PSI
P 3 =	5.44	atm
V 3 =	0.049889	LITERS
V 3 =	3.044398	CUBIC INCH
HEIGHT BELOW TOP	FULL - AT TOP	

DIFFERENCE IN HEIGHT	2	INCHES
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FIG. 7